



May 24, 2017

Ms. Tina Green BC Laboratories 4100 Atlas Ct. Bakersfield, CA 93308

RE: Project: 1711473

Pace Project No.: 30217991

Dear Ms. Green:

Enclosed are the analytical results for sample(s) received by the laboratory on May 05, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This test is accredited under the laboratory's DoD ELAP accrediation inssued by the Laboratory Accreditation Bureau (L-A-B). Refer to certificate and scope of accreditation L2417

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

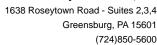
Carin a. Ferris

Carin Ferris carin.ferris@pacelabs.com 724-850-5615 Project Manager

Enclosures

cc: Ms. Christina Herndon, BC Laboratories







CERTIFICATIONS

Project: 1711473

Pace Project No.: 30217991

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification Missouri Certification #: 235 Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282

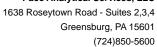
South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

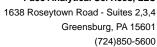




SAMPLE SUMMARY

Project: 1711473
Pace Project No.: 30217991

Lab ID	Sample ID	Matrix	Date Collected	Date Received	
30217991001	DUP01_170427	Water	04/27/17 08:50	05/05/17 10:10	
30217991002	EB09_170427	Water	04/27/17 14:30	05/05/17 10:10	
30217991003	M026A-R_170427	Water	04/27/17 08:45	05/05/17 10:10	

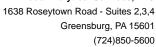




SAMPLE ANALYTE COUNT

Project: 1711473
Pace Project No.: 30217991

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30217991001	DUP01_170427	EPA 900.0	NEG	2
30217991002	EB09_170427	EPA 900.0	NEG	2
30217991003	M026A-R_170427	EPA 900.0	NEG	2





PROJECT NARRATIVE

Project: 1711473

Pace Project No.: 30217991

Method: EPA 900.0

Description: 900.0 Gross Alpha/Beta
Client: BC Laboratories
Date: May 24, 2017

General Information:

3 samples were analyzed for EPA 900.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 1711473
Pace Project No.: 30217991

Sample: DUP01_170427 Lab ID: 30217991001 Collected: 04/27/17 08:50 Received: 05/05/17 10:10 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 900.0 11.7 ± 4.08 (2.99) Gross Alpha pCi/L 05/23/17 10:49 12587-46-1 C:NA T:NA EPA 900.0 Gross Beta 16.6 ± 3.75 (2.75) pCi/L 05/23/17 10:49 12587-47-2 C:NA T:NA

Sample: EB09_170427 Lab ID: 30217991002 Collected: 04/27/17 14:30 Received: 05/05/17 10:10 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

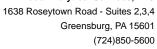
Act ± Unc (MDC) Carr Trac **Parameters** Method Units Qual Analyzed CAS No. EPA 900.0 0.318 ± 0.489 (1.04) Gross Alpha pCi/L 05/23/17 08:33 12587-46-1 C:NA T:NA EPA 900.0 0.907 ± 0.844 (1.73) Gross Beta pCi/L 05/23/17 08:33 12587-47-2 C:NA T:NA

Sample: M026A-R_170427 Lab ID: 30217991003 Collected: 04/27/17 08:45 Received: 05/05/17 10:10 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 900.0 12.0 ± 4.24 (2.92) Gross Alpha pCi/L 05/23/17 08:32 12587-46-1 C:NA T:NA EPA 900.0 Gross Beta 16.4 ± 3.84 (3.16)pCi/L 05/23/17 08:32 12587-47-2 C:NA T:NA





QUALITY CONTROL - RADIOCHEMISTRY

Project: 1711473
Pace Project No.: 30217991

QC Batch: 258806 Analysis Method: EPA 900.0

QC Batch Method: EPA 900.0 Analysis Description: 900.0 Gross Alpha/Beta

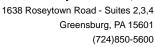
Associated Lab Samples: 30217991001, 30217991002, 30217991003

METHOD BLANK: 1274780 Matrix: Water

Associated Lab Samples: 30217991001, 30217991002, 30217991003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.142 ± 0.726 (1.84) C:NA T:NA	pCi/L	05/19/17 06:46	
Gross Beta	0.229 ± 0.765 (1.81) C:NA T:NA	pCi/L	05/19/17 06:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALIFIERS

Project: 1711473

Pace Project No.: 30217991

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Date: 05/24/2017 04:09 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

SUBCONTRACT ORDER BC Laboratories 1711473

SENDING LABORATORY:

BC Laboratories 4100 Atlas Court Bakersfield, CA 93308 Phone: 661-327-4911 FAX: 661-327-1918

Project Manager: Tina Green

RECEIVING LABORATORY:

PACEA

PACE Analytical 1638 Roseytown Road, Ste 2,3 &4 Greensburg, PA 15601 Phone: (724) 850-5600

Phone: (724) 850-5600 FAX: (724) 850-5601

Analysis		Due	Expires	Comments	decrenishment de respectation de la company de la comp
Sample ID: 1711473-01	Water	Sampled:	04/27/17 08:50	clp	001
EPA 900.0 Gross Alpha/Beta		05/11/17 17:00	10/25/17 08:50	DOD/Level IV/ Groundwater/ CA /*NEED EQUIS EDD/4D - DUP01_170427	
Containers supplied:					
Sample ID: 1711473-03	Water	Sampled:	04/27/17 14:30	clp	_007_
EPA 900.0 Gross Alpha/Beta		05/11/17 17:00	10/25/17 14:30	DOD/Level IV/ Groundwater/ CA / NEED EQUIS EDD/ ID =EB09 170427	
Containers supplied:				EQ010 EDD14D ED00_170	J-12.1
Sample ID: 1711473-04	Water	Sampled:	04/27/17 08:45	clp	003
EPA 900.0 Gross Alpha/Beta		05/11/17 17:00	10/25/17 08:45	DOD/Level IV/ Groundwater EQUIS EDD/ ID=M026A-R	
Containers supplied:					110761

WO#:3C217991



Use Sangle Ibs as Sample descriptions

Released By

Date

Réceived By CUM QUE

5-5-17/1010 Date

Released By

Date

Received By

Date

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PACEA

Sample Con	dition Upon Rec	eipt F	Pittsl	burg	jh	
Face Analytical	Client Name:			<u>3C</u>	labs	3021799 Project#
Courier: Fed Ex Tracking #: 12 9	UPS	ent 🗆	Comr 28	nercia	Pace Other	
Custody Seal on Coole	r/Box Present: yes	P	no	Seal	ls intact;	□ no
Thermometer Used		Туре	of Ice	: We	et Blue (None)	
Cooler Temperature	Observed Temp	Carried State of Stat	- ° c	Cor	rection Factor:	°C Final Temp: °C
Temp should be above freez	ring to 6°C					Date and Initials of person examining
_				1	\neg	contents:
Comments:	, a , a , a , a , a , a , a , a , a , a	Yes	No	N/A		THE RESIDENCE AND ASSESSED ASSESSED ASSESSED.
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Chain of Custody Filled C	Out:	\leftarrow		ļ	2.	LONG TO THE TOTAL THE TOTAL TO THE TOTAL TOT
Chain of Custody Relinqu	lished:		-	-	3.	
Sampler Name & Signatu	ire on COC:	 	X	<u> </u>	4.	
Sample Labels match CC	OC:	X		<u> </u>	_ ∫5.	
-Includes date/time/ID	Matrix:	XXI		т —		
Samples Arrived within He	old Time:	X			6.	<u></u>
Short Hold Time Analysi	is (<72hr remaining):	<u> </u>	X		7.	
Rush Turn Around Time	Requested:		X		8.	
Sufficient Volume:	#*************************************	X			9.	A BOOM OF THE STATE OF THE STAT
Correct Containers Used:					10.	
-Pace Containers Used	<u>i:</u>		X			
Containers Intact:		X		0000 6 00 V20	11.	
Orthophosphate field filter	ed	ļ <u></u>		X,	12.	
Organic Samples check	ed for dechlorination:			Δ	13.	Manual Control of the
litered volume received f				X	14.	
All containers have been che	cked for preservation.	X	_		15 1/17	
All containers needing present compliance with EPA recomm		X			PHILZ	
exceptions: VOA, coliforn	n, TOC, O&G, Phenolics				Initial when the completed to the completed to the completed to the complete t	Date/time of preservation
leadspace in VOA Vials (>6mm/:			V	16.	
rip Blank Present:	- Oning		X	/_	17.	and and delivery the state of t
rip Blank Custody Seals F	Draeant		/	\mathbf{X}^{\dagger}	117.	
Rad Aqueous Samples S		\dashv	X		Initial when	5.5.0
	- Atheres (Inc.)			-	completed: A 1	Date: 5-5-1)
lient Notification/ Resol				D-1 ~		Contacted Div
				Date/T	ime:	Contacted By:
Comments/ Resolution: _						

 \square A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.